ABSTRACT OF THE DISCLOSURE

A temperature difference swimming pool comprises a plurality of spaced apart water curtain controlling devices arranged at a bottom of the pool, and a temperature regulating system. Each of the water curtain controlling devices includes two juxtaposed pipes, a series of intermittent holes is formed in a top surface of the pipes, the pipes each has a closed end, and another end of the pipes is connected to a pump. Water is suctioned by the pump into one pipe and is then spurted out of the other pipe, thus making the water circulate and forming a water curtain. Since the water curtain stops the convection of the water, and the temperature regulating system is used to heat the water in one end of the swimming pool while cooling the water in the other end, thus forming a cold water region and a warm water region in one swimming pool.